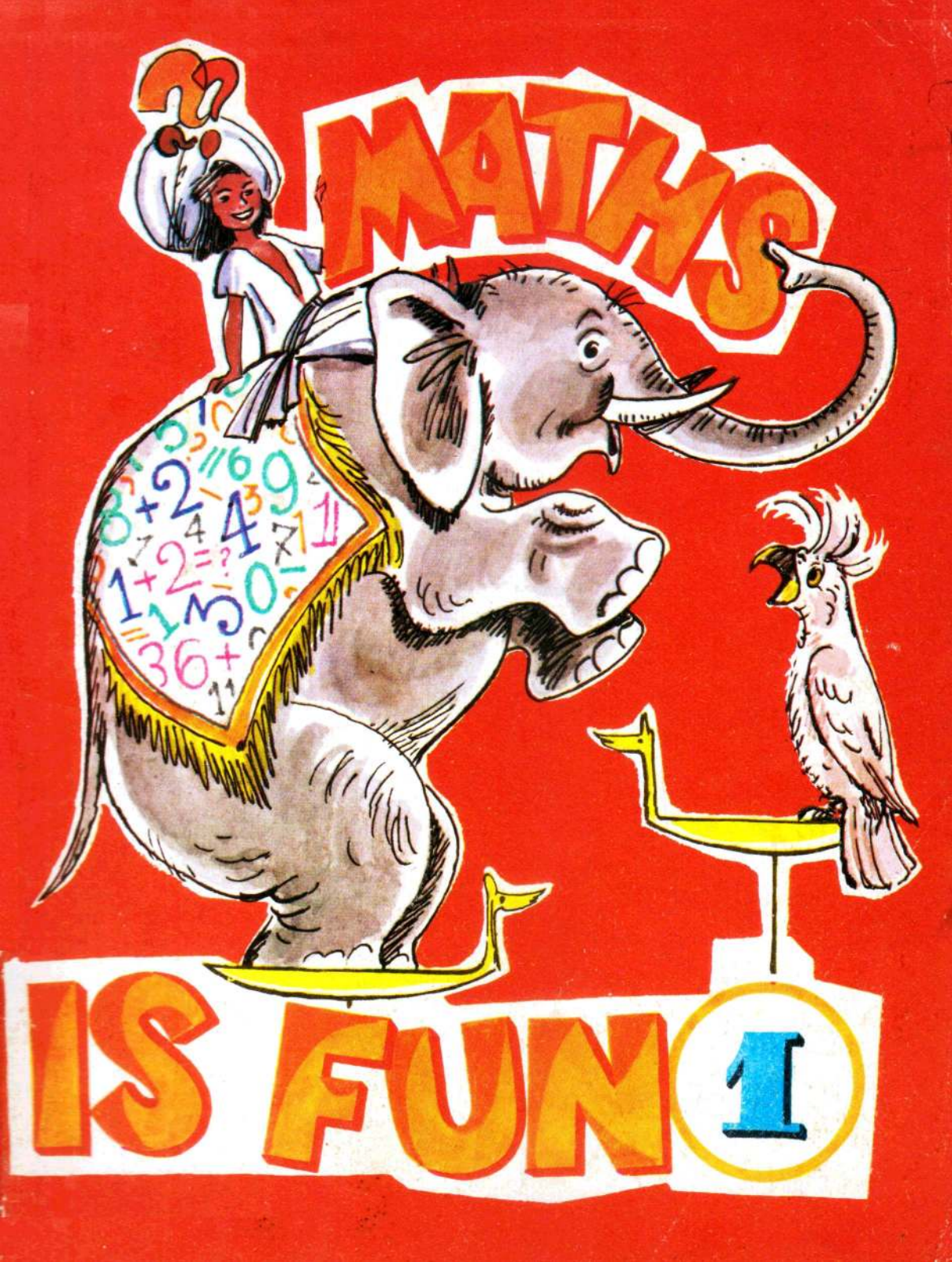
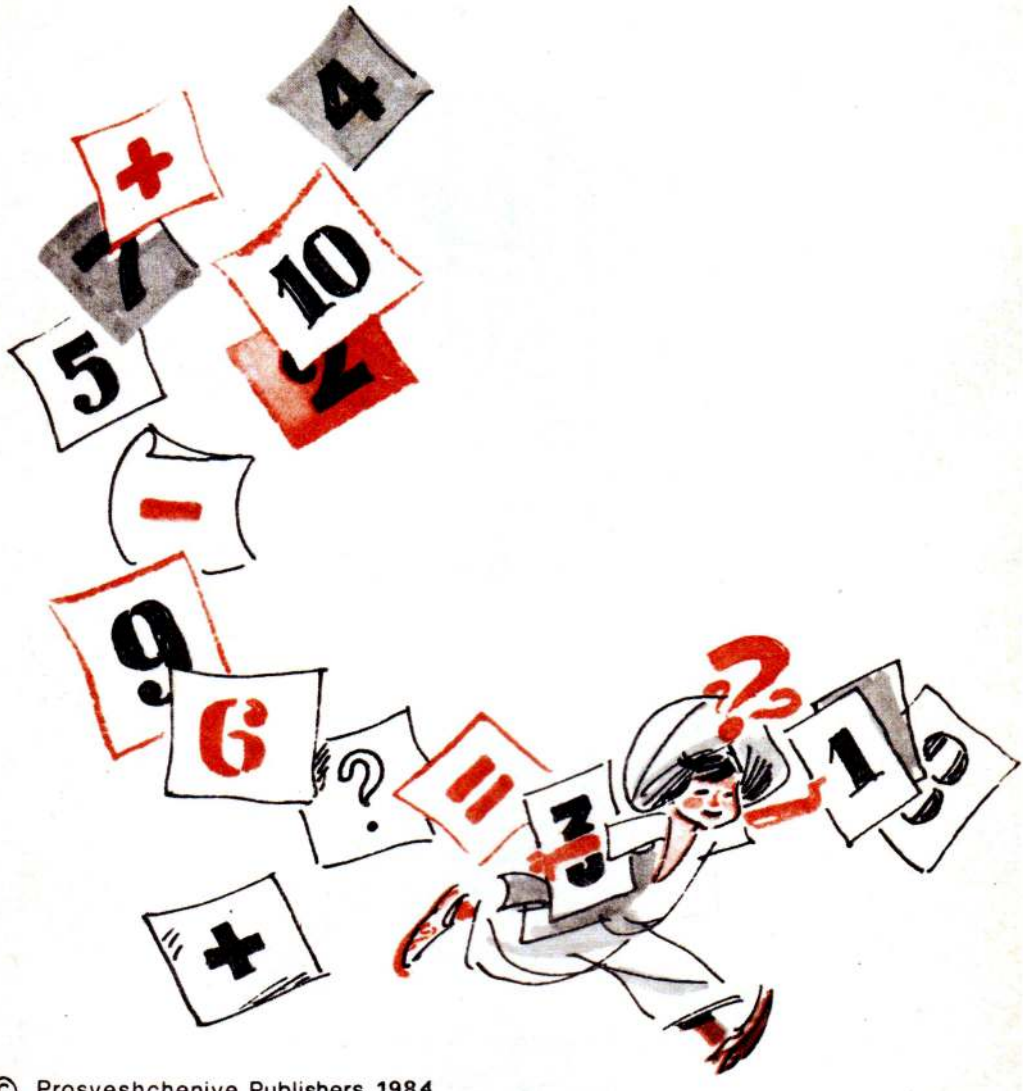

MATHS
IS FUN
1

N. VAPNYAR

MATHS IS FUN 1

Illustrated by B. RYTMAN

Prosveshcheniye Publishers
Moscow 1984



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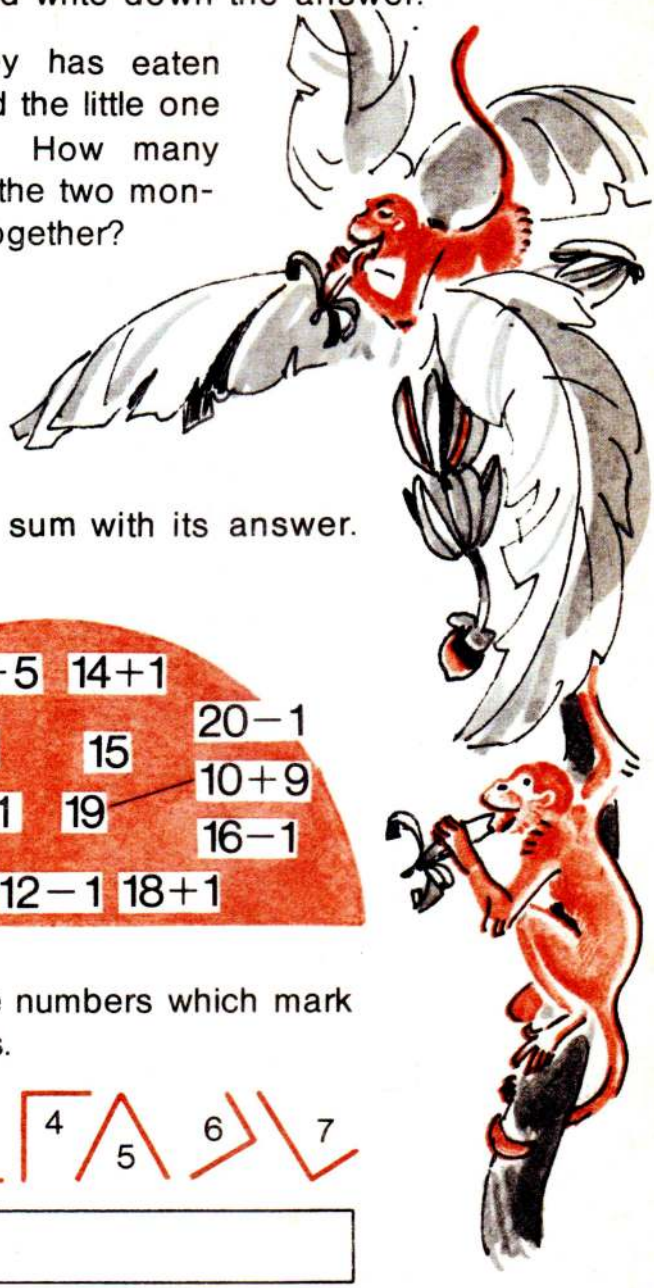
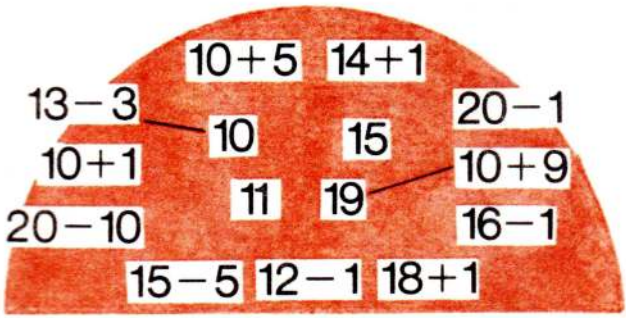
1 Do the sum and write down the answer.

The big monkey has eaten 5 bananas, and the little one 2 bananas. How many bananas have the two monkeys eaten altogether?

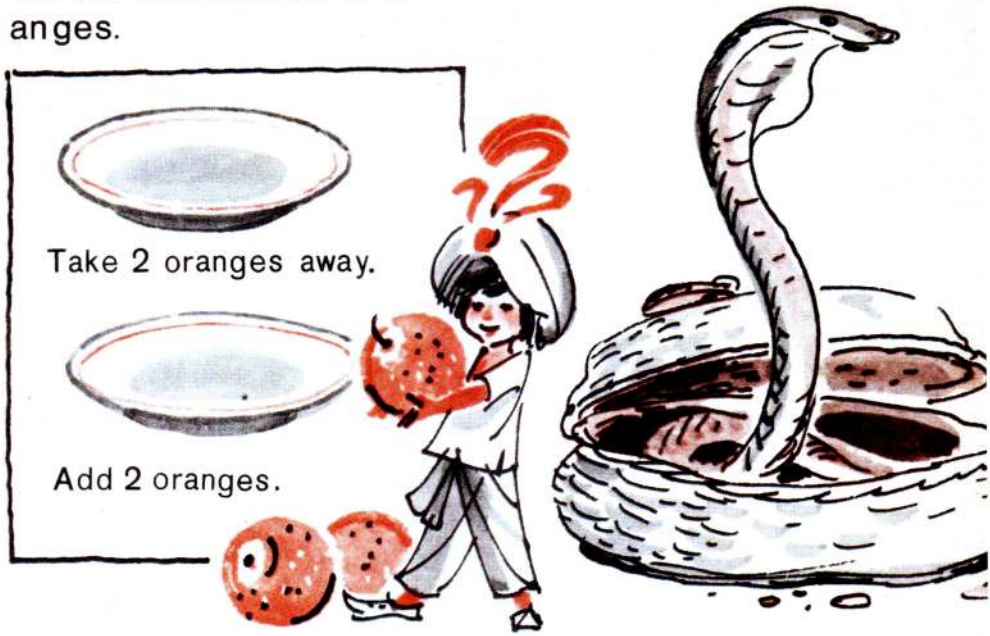


2 Connect each sum with its answer.



3 Write down the numbers which mark the right angles.

4 On the empty plates draw the correct number of oranges.

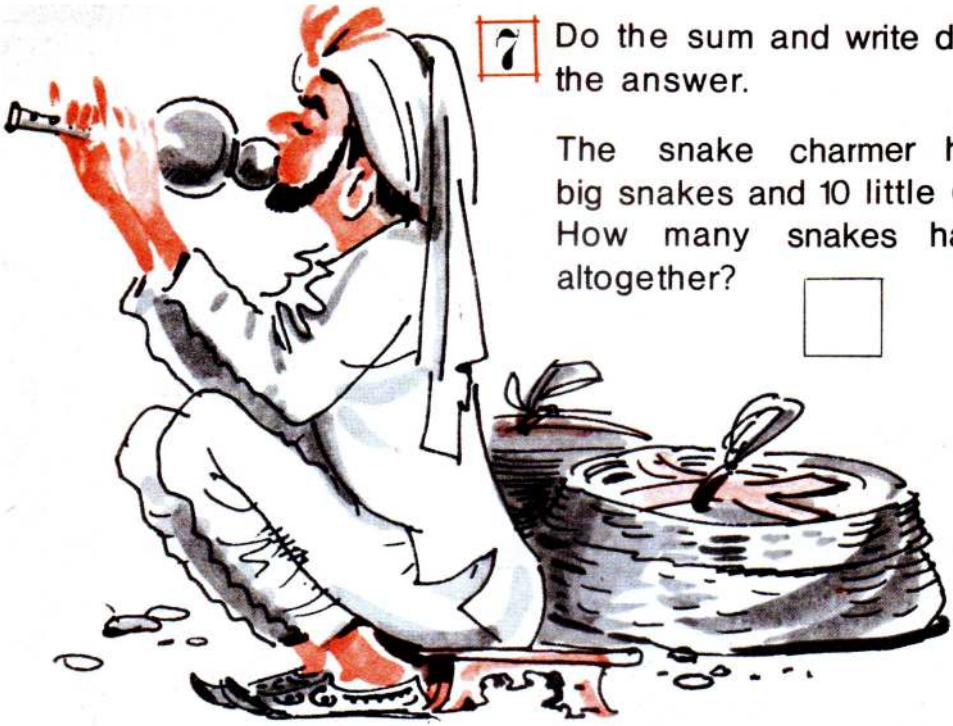


5 Write the missing numbers in the squares.

5+□=8	□+2=7
6+□=9	□+3=10
2+□=6	□+6=8
4+□=9	□+8=10

6 Fill in the blanks with the right numbers.

47	48	49									58
75	74	73									64



7 Do the sum and write down the answer.

The snake charmer has 5 big snakes and 10 little ones. How many snakes has he altogether? ☐

8 Write the missing numbers in the squares.

8 = 2 + ☐ + ☐

9 = ☐ + 4 + ☐

10 = ☐ + ☐ + 5

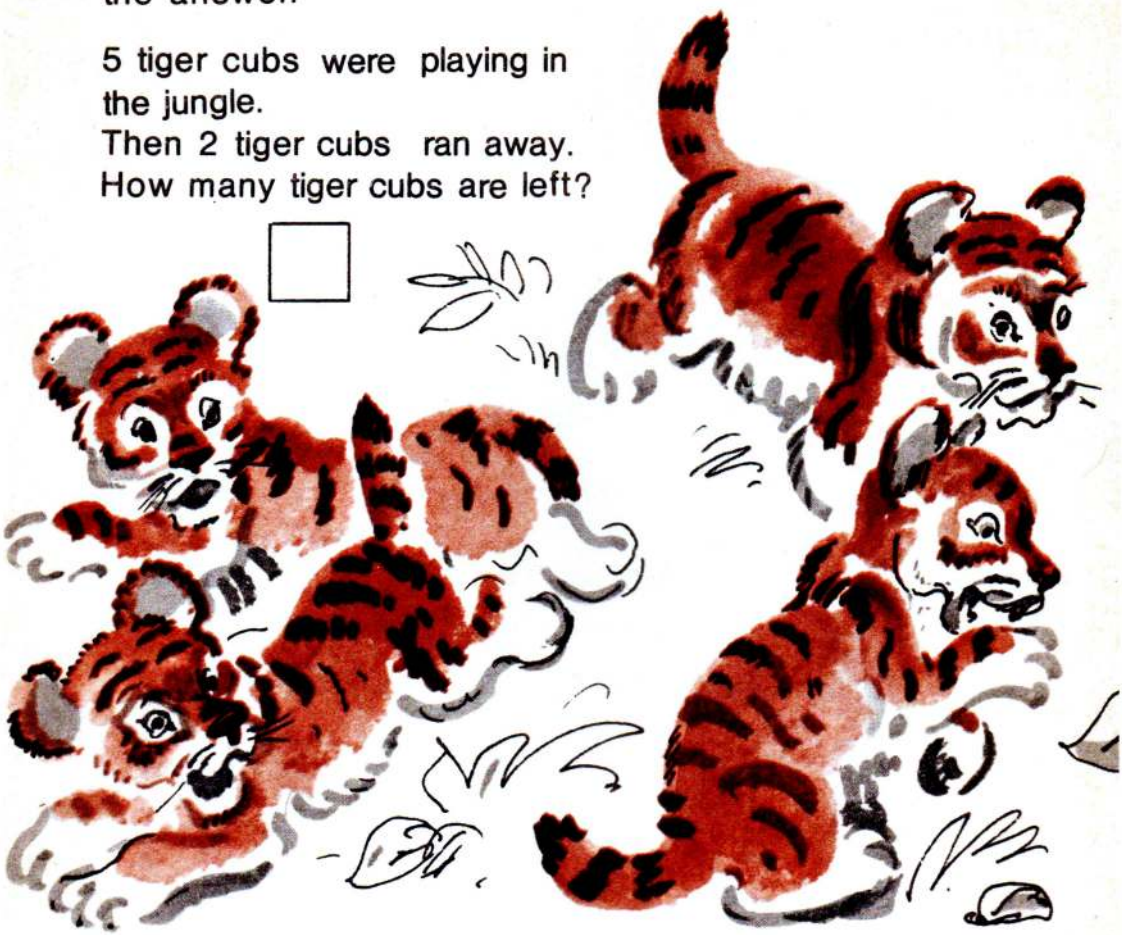
7 = 1 + ☐ + ☐

9 Take 10 away from each of these numbers as shown :

74	66	28	91	22	19	15	20	16	10	12	11
64	56										

10 Do the sum and write down the answer.

5 tiger cubs were playing in the jungle.
Then 2 tiger cubs ran away.
How many tiger cubs are left?



11 Write down the correct sums and differences as shown:

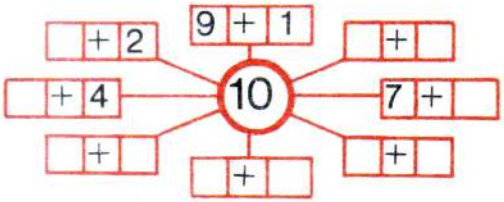
Numbers	5 and 3	4 and 5	9 and 1	3 and 7	8 and 2
Sum	8				
Difference	2				

12 How many small sticks of the same length do you need to make a square? Draw a square.

13 Do the sum and write down the answer.

There are 45 men in the first railway carriage and 40 men in another one. How many more men are there in the first carriage?

14 Write the missing numbers so that the result is 10.



15 Continue the rows of figures, then read them.

25	26	27							
37	38	39							
52	53	54							

16 Do the sum and write down the answer.

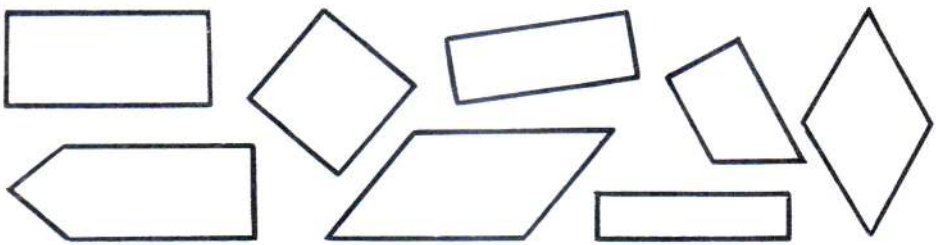
The boy is 14 years old and his sister is 10 years old.

How much older is the brother than the sister? ☐

How much younger is the sister than the brother? ☐

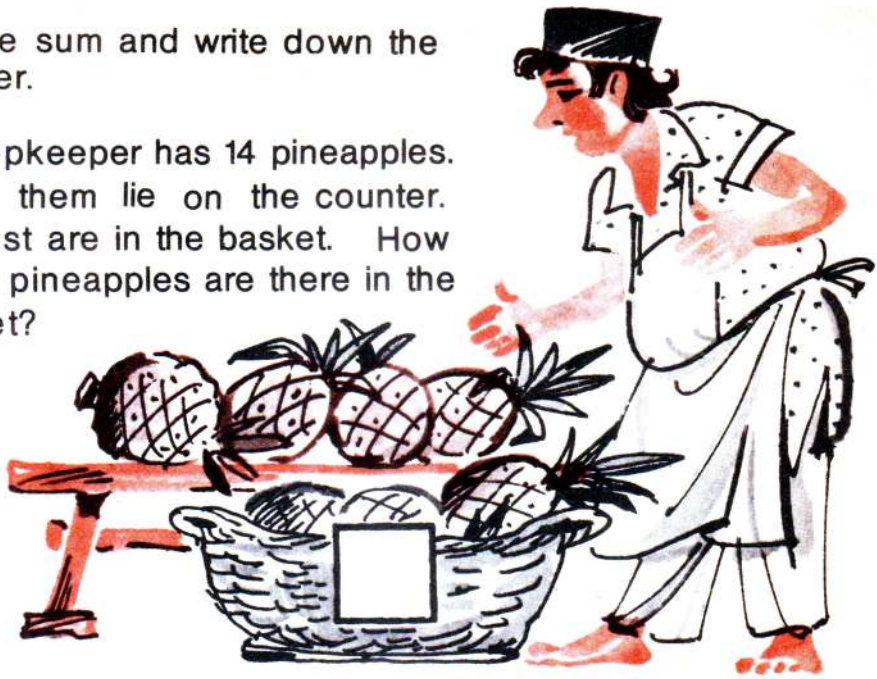
17 Write down the necessary signs and numbers above the arrows.

18 Pick out the rectangles and colour them.



19 Do the sum and write down the answer.

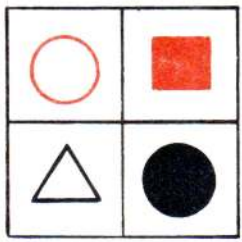
A shopkeeper has 14 pineapples. 4 of them lie on the counter. The rest are in the basket. How many pineapples are there in the basket?

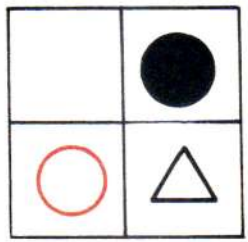


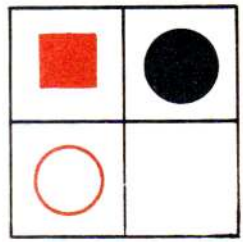
20 Underline the sums which have 8 as the answer.

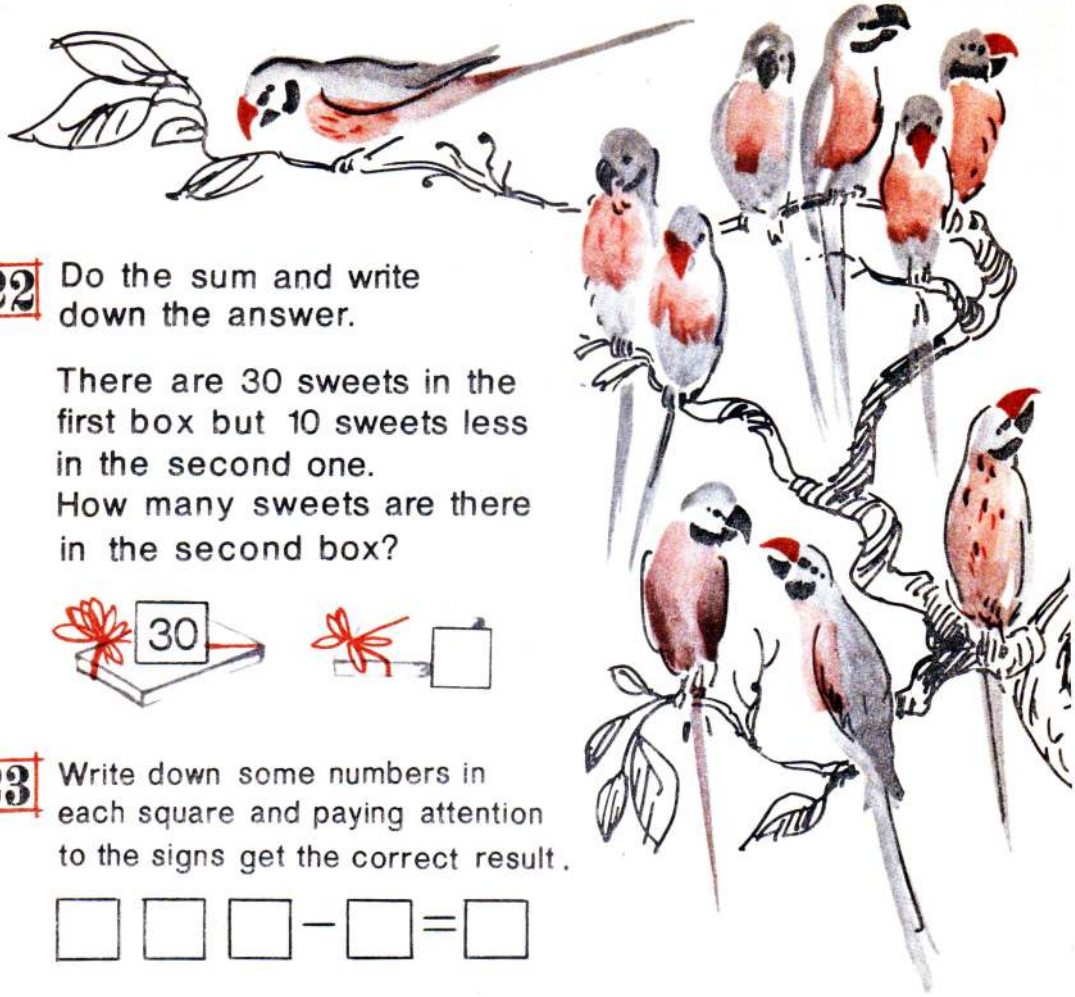
3+5	6+2	10−4	1+7
3+2	10−2	5+3	2+4
10−3	4+4	9−1	7+1

21 Draw the missing geometrical shapes in the empty squares.









22 Do the sum and write down the answer.

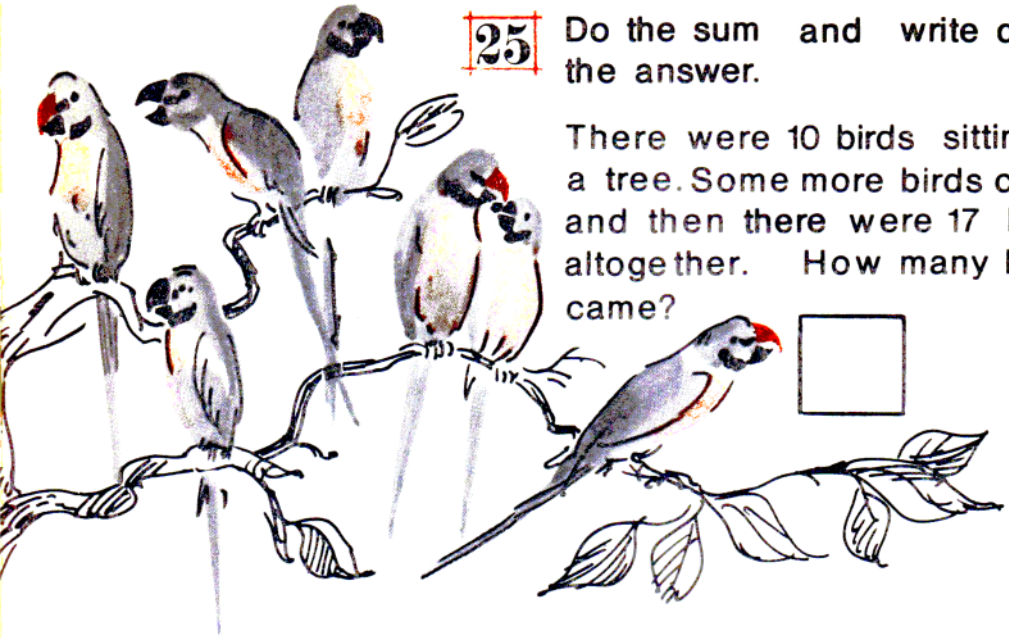
There are 30 sweets in the first box but 10 sweets less in the second one.
How many sweets are there in the second box?

23 Write down some numbers in each square and paying attention to the signs get the correct result.

□ □ □ − □ = □

24 Fill in the blanks with the correct numbers.

+	50	20	30	40	
	30	60			50
Result	80		90	70	100



25 Do the sum and write down the answer.

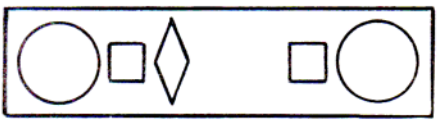
There were 10 birds sitting in a tree. Some more birds came, and then there were 17 birds altogether. How many birds came?

□

26 Fill in the missing sign (+ or −) and the correct number to get the given answer.

5 + □ = 7	6 . . . □ = 2
6 . . . □ = 10	8 . . . □ = 10
8 . . . □ = 3	1 . . . □ = 8
9 . . . □ = 8	4 . . . □ = 1

27 Look closely at the design on the left. Add the missing geometrical shapes in the design on the right. Colour the designs.

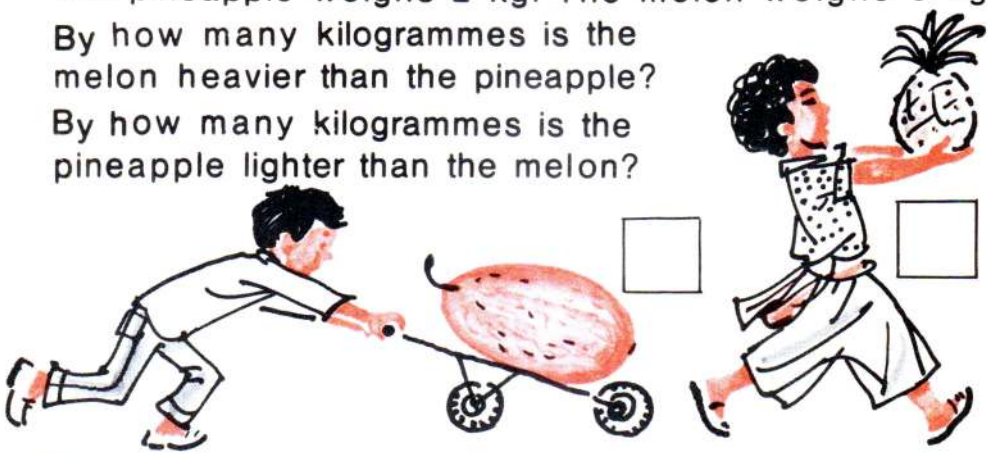


28 Do the sum and write down the answer.

The pineapple weighs 2 kg. The melon weighs 5 kg.

By how many kilogrammes is the melon heavier than the pineapple?

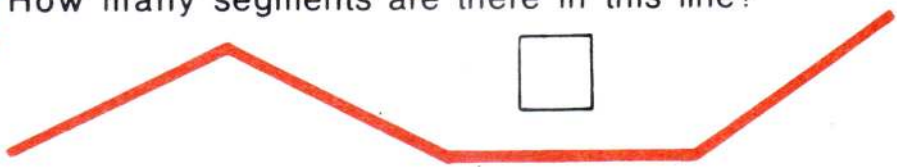
By how many kilogrammes is the pineapple lighter than the melon?



29 Draw a line to connect the sums which have the same answer.

52+3	85+5
61+6	27+40
72+4	35+20
83+7	46+30

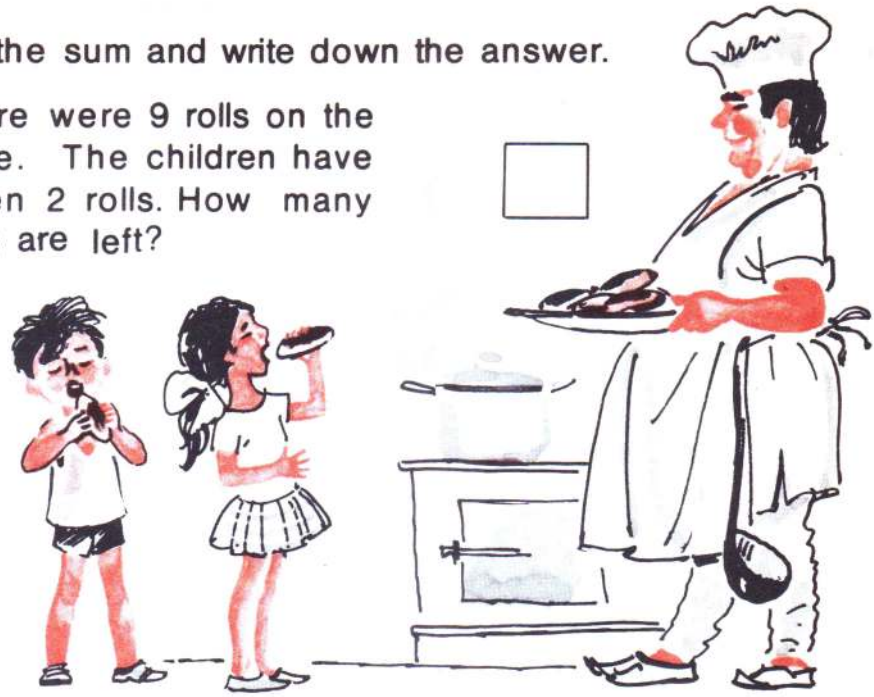
30 How many segments are there in this line?



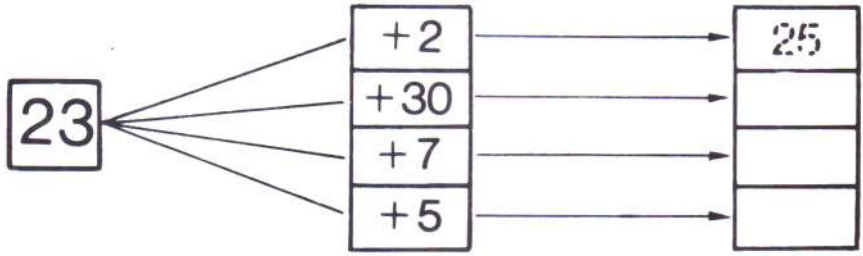
Take the same number of small sticks. Put them together to make different geometrical shapes. Draw your shapes.

31 Do the sum and write down the answer.

There were 9 rolls on the plate. The children have taken 2 rolls. How many rolls are left?



32 Write down the correct sum in the squares.



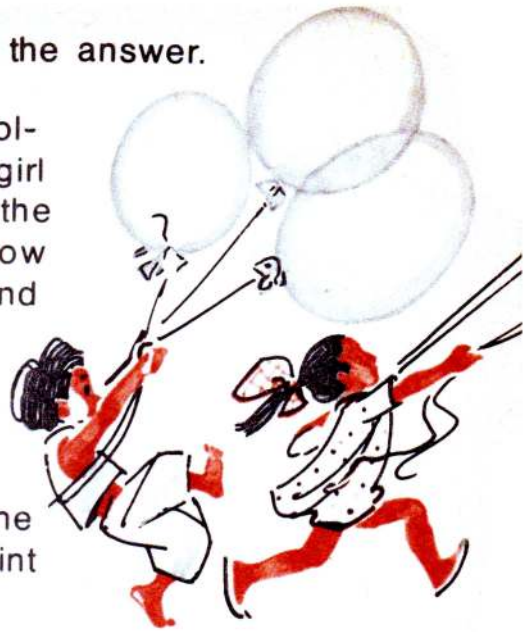
33 Measure this line. cm

Draw a line 3 cm longer than this one.
How long is it?

 cm

34 Do the sum and write down the answer.

Two girls are cutting out coloured paper circles. One girl has cut out 17 circles and the other 6 circles less. How many circles has the second girl cut out?



Draw the circles which the second girl has cut out. Paint them in different colours.

35 Continue this design. Colour the triangles.

36 Take the bottom numbers away from the top ones.

—	45	56	70	38	53	89	94
	3	40	8	20	2	7	60
Answer	42						

37 Do the sum and write down the answer.

10 balloons were bought for a children's party. 6 of them were green and the rest were yellow. How many yellow balloons were bought?

Colour the balloons correctly.

38 Connect each sum with its answer.

45−4	41	52+7
29+30	76	28+2
46+30	30	72+4
27+3	66	62+6
68−2	59	61−20

* **39** Which is heavier – a kilogramme of iron or a kilogramme of cotton wool?

* The answers to the problems with this mark will be found on page 42.

40 Do the sum and write down the answer.

This boy has placed 5 toy animals in the first lorry, and 3 toy animals in the second one. How many toy animals are there in the two lorries?

41 Underline the sum which has 36 as the answer.

40 − 4	100 − 70	32 + 4
86 − 40	33 + 3	46 − 20
16 + 20	38 − 2	66 − 30
48 − 2	26 + 10	31 + 5

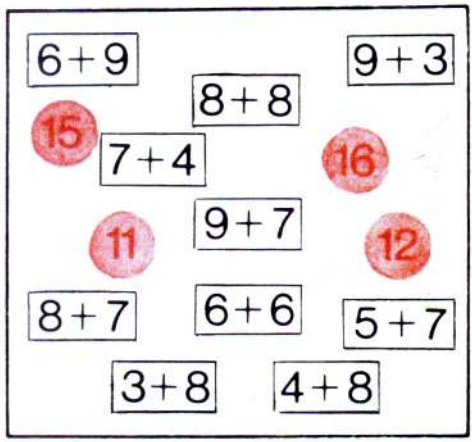
* **42** Do the sum and write down the answer.

A boy has three brothers and two sisters. How many children are there in the family altogether?

43 Do the sum and write down the answer.

The children have decorated their room for a holiday. They put 18 flags on one wall but 6 flags less on another. How many flags did they put on the second wall?

44 Connect each sum with its answer.



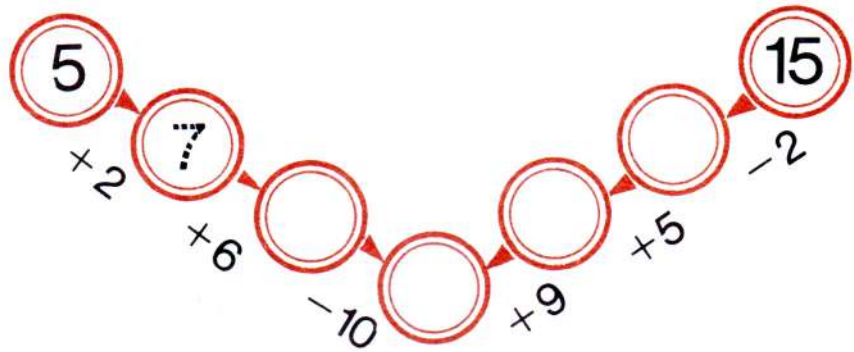
* **45** Do the sum and write down the answer.

7 candles were lit and put on the table. Two of the candles went out.
How many candles remain on the table?

46 Do the sum and write down the answer.

The children have taken 3 toys from the box. 4 toys are left there. How many toys were in the box to begin with?

47 Write the missing numbers in the circles.

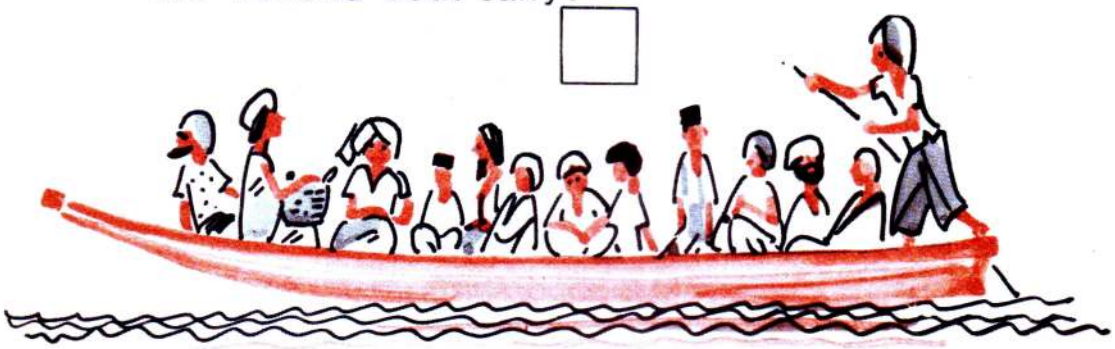


* **48** Do the sum and write down the answer.

It takes 3 minutes to boil one egg. How long will it take to boil 2 eggs?

49 Do the sum and write down the answer.

One boat carries 10 passengers, and the other boat carries 12. How many more passengers does the second boat carry?



50 Take the numbers outside the box away from the figures in the squares. Write the answer in the blanks.

−7	
14	7
12	
11	
13	
15	
16	

−8	
12	4
17	
11	
15	
13	
16	

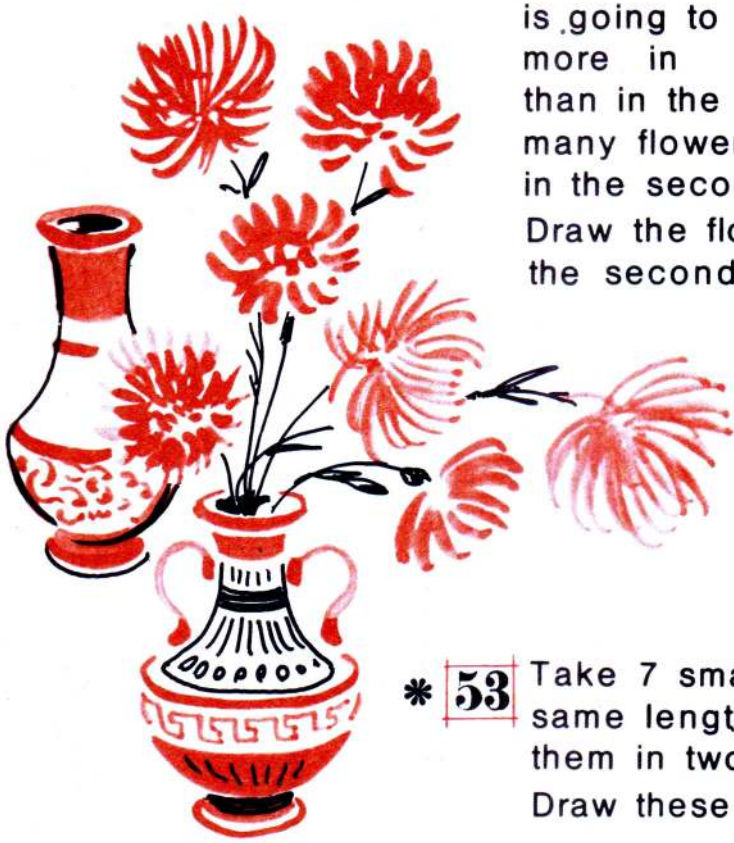
* **51** Do the sum and write down the answer.

There were 6 sparrows sitting on the grass.
A cat stole up and caught one sparrow.
How many sparrows were left on the grass?

52 Do the sum and write down the answer.

A little girl has put 7 flowers in one vase, and she is going to put 2 flowers more in another vase than in the first one. How many flowers will there be in the second vase?

Draw the flowers in the second vase.



* **53** Take 7 small sticks of the same length and arrange them in two squares.

Draw these squares.

54 Subtract 9 from these numbers.

12	14	17	13	16	15	18	20
3							

55 Do the sum and write down the answer.

There were 12 kg of mangoes in a basket. When some mangoes were taken out, 9 kg remained. How many kilogrammes of mangoes were taken out of the basket?

56 Write down the correct signs and numbers above the arrows.

* **57** How can you measure 6 litres of water from a tap using two jars? One of these jars holds 2 litres and the other holds 5 litres.

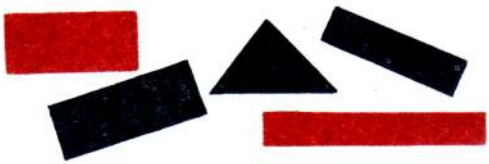
58 Do the sum and write down the answer.

One woman picked 12 kg of tea-leaves during the day and another woman picked 9 kg. How many kilogrammes of tea-leaves did the two women pick altogether?

59 Connect each sum with its answer.

25+9		53	28+6
37+8		34	29+8
48+5		37	36+9
46+7		45	49+4

* **60** Which of these geometrical shapes is the odd one out?



61 Do the sum and write down the answer.

A little girl had 15 flowers. She then gave several flowers to her friend. Now she has 8 flowers left. How many flowers did the girl give to her friend?

62 Connect the sums which have the same answer.

28 − 9	65 − 7
46 − 8	34 − 9
32 − 7	42 − 4
62 − 4	22 − 3

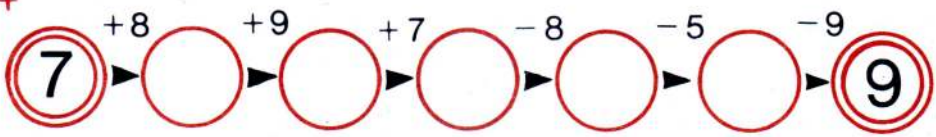
* **63** Do the sum and write down the answer.

A boy has to go up to the second floor of a house. There are 20 steps between each floor. How many steps does the boy have to climb?

64 Do the sum and write down the answer.

A peasant had 12 buffalo. First he sold 2 buffalo, then he sold 5 more. How many buffalo does he have left?

65 Write the missing numbers in the circles.



* **66** Do the sum and write down the answer.

A boy cut a stick into 7 pieces. How many times did he cut it?

67 Do the sum and write down the answer.

This boy had 44 postage stamps. He gave some stamps to his friend, and then had 27 left. How many stamps did he give his friend?

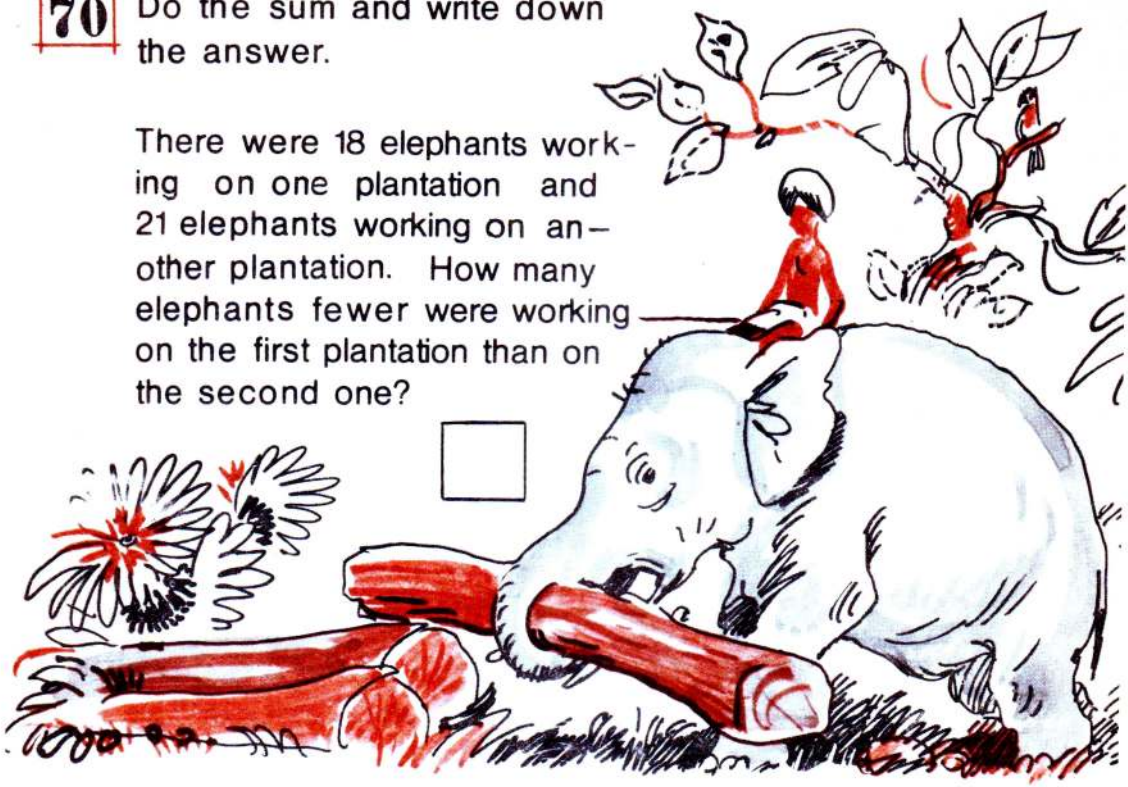
68 Underline the sums which have 45 as the answer.

32+13	47−12	36+9
56−9	21+24	54−9
11+34	59−14	69−14
46+9	23+22	38+7

* **69** Make 2 triangles and 1 quadrangle using 5 small sticks. Draw these figures.

70 Do the sum and write down the answer.

There were 18 elephants working on one plantation and 21 elephants working on another plantation. How many elephants fewer were working on the first plantation than on the second one?

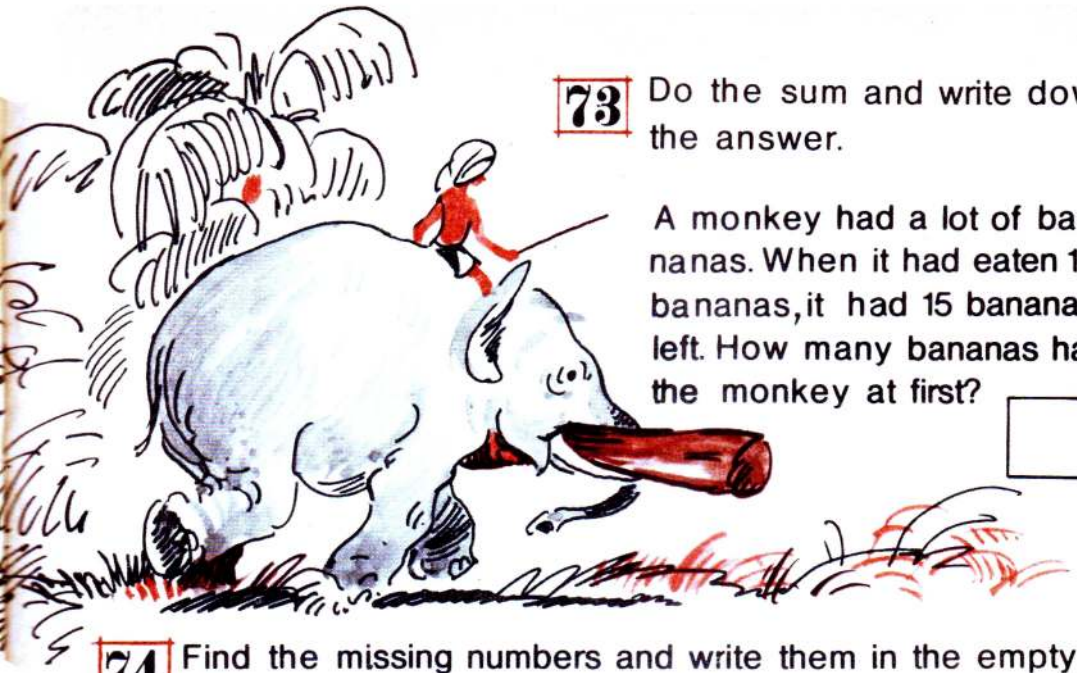


71 Connect each sum with its answer.

48+7	36	48−12
59−23	63	22+41
94−31	79	33+22
37+42	55	82−3

* **72** Do the sum and write down the answer.

A mother has 5 daughters. Each daughter has 1 brother. How many children does the mother have altogether?



73 Do the sum and write down the answer.

A monkey had a lot of bananas. When it had eaten 12 bananas, it had 15 bananas left. How many bananas had the monkey at first?

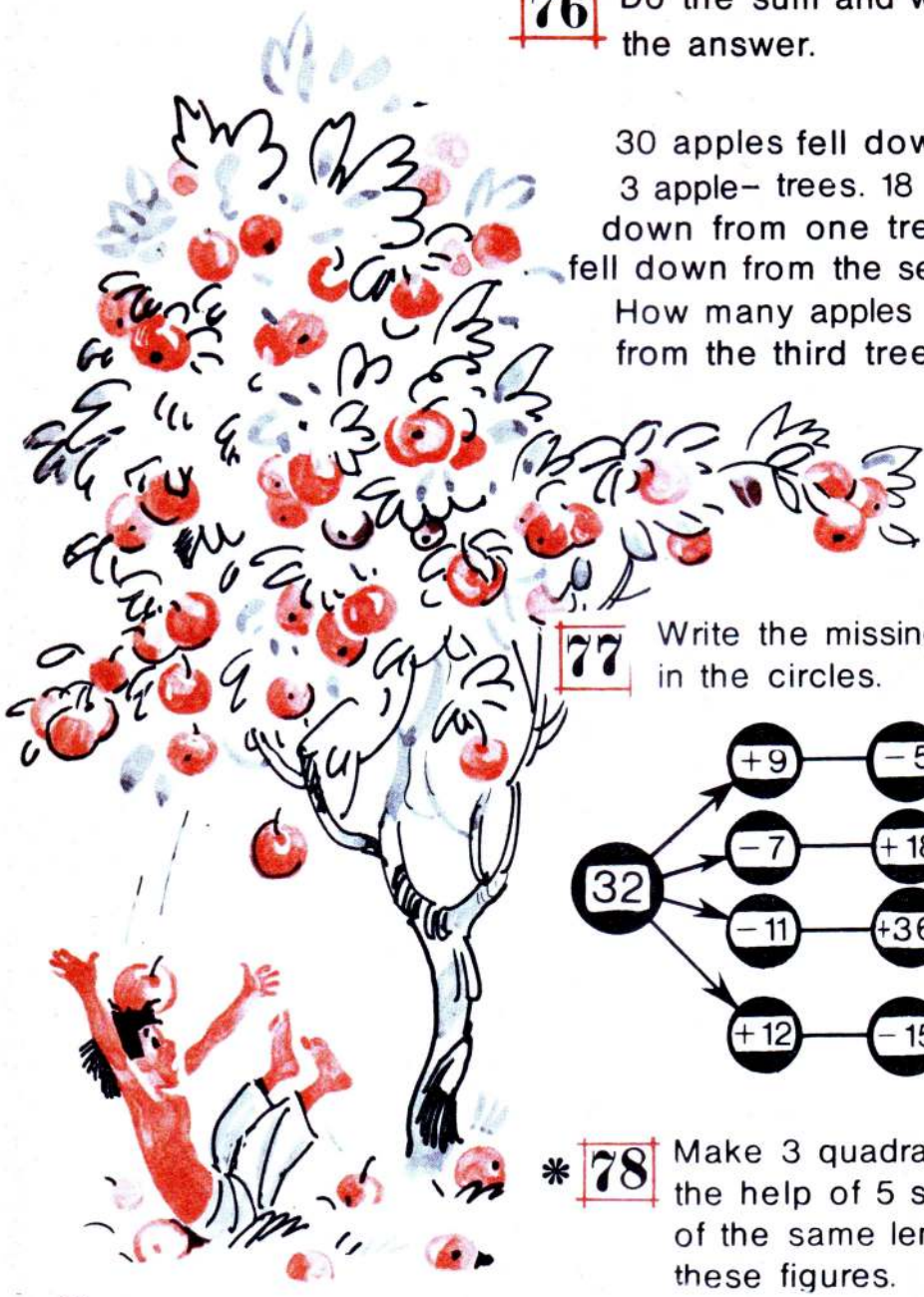
74 Find the missing numbers and write them in the empty spaces.

–	45		37			54		60	
		58	12	36	44		71		18
Answer	21	8		47		33	14	45	9

* **75** Do the sum and write down the answer.

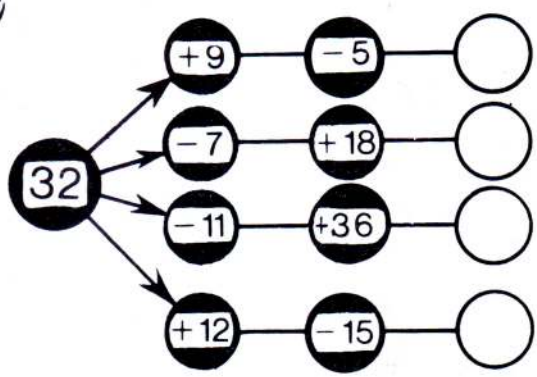
Some elephants were walking through the jungle. One elephant was in front and two elephants were behind. Two elephants were in front and one elephant was behind. One elephant was walking between two elephants. Three elephants were walking in a line one after another. How many elephants in all were walking through the jungle?

76 Do the sum and write down the answer.



30 apples fell down from 3 apple- trees. 18 apples fell down from one tree, 3 more fell down from the second tree. How many apples fell down from the third tree?

77 Write the missing numbers in the circles.

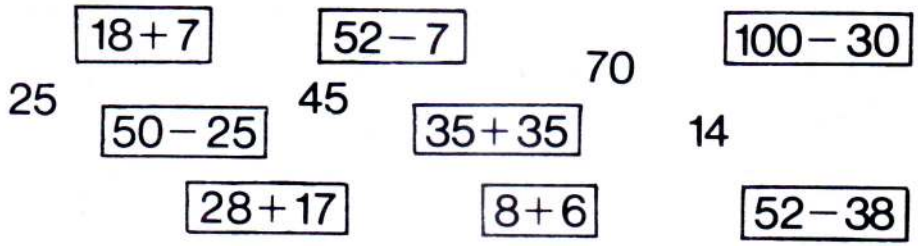


* **78** Make 3 quadrangles with the help of 5 small sticks of the same length. Draw these figures.

79 Do the sum and write down the answer.

There were 7 parrots in one cage and 3 more parrots in the other cage. In the third cage there were 4 parrots more than in the second cage. How many parrots were there in the second and third cages?

80 Connect each sum with its answer.



* **81** Do the sum and write down the answer.

A brother once said to his sister, "I am 3 years older than you are. How many years older than you will I be in 2 years?"

82 Do the sum and write down the answer.

There were 17 desks in a class-room. First 3 desks were taken away; then, 5 more. How many desks remain in the class-room?

83 Connect the sums which have the same answer.

$75+16=\square$	$60-9=\square$
$48-9=\square$	$24+15=\square$
$97-44=\square$	$38+53=\square$
$63-12=\square$	$22+31=\square$

* **84** A girl has two cans. One can holds 5 litres of water, and the other–3 litres. (The bucket holds 12 litres of water.) How can you pour exactly 7 litres of water into the bucket using these two cans?

I. A DICE GAME

"ON THE WAY TO THE JUNGLE SCHOOL"

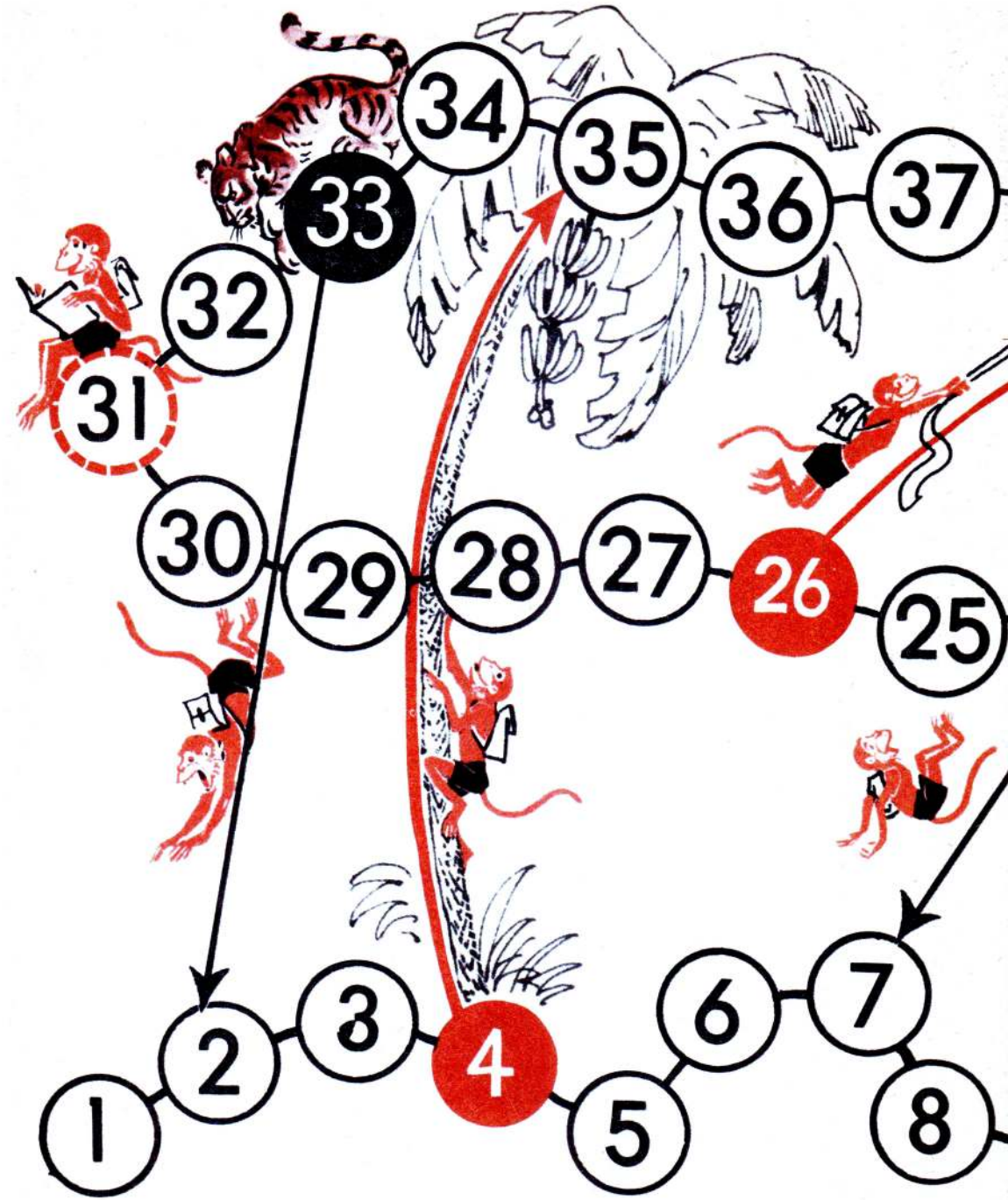
Two monkeys have to go to school in the jungle. You must take them there. To do this, you must first cut out and glue the dice from the Appendix on p. 45. Then cut out the counters. One of you will take the little monkey to school, and the other will take the big one.

Throw the dice in turn and move your counter for the number of circles corresponding to the number of dots that show on the upper side of the dice.

If you land on a brown circle, move your counter in the direction of the arrow.

If you land on a black circle, move your counter back in the direction of the arrow.

If you land on a circle with a brown ring, you miss one go. The first to take a monkey to school is the winner.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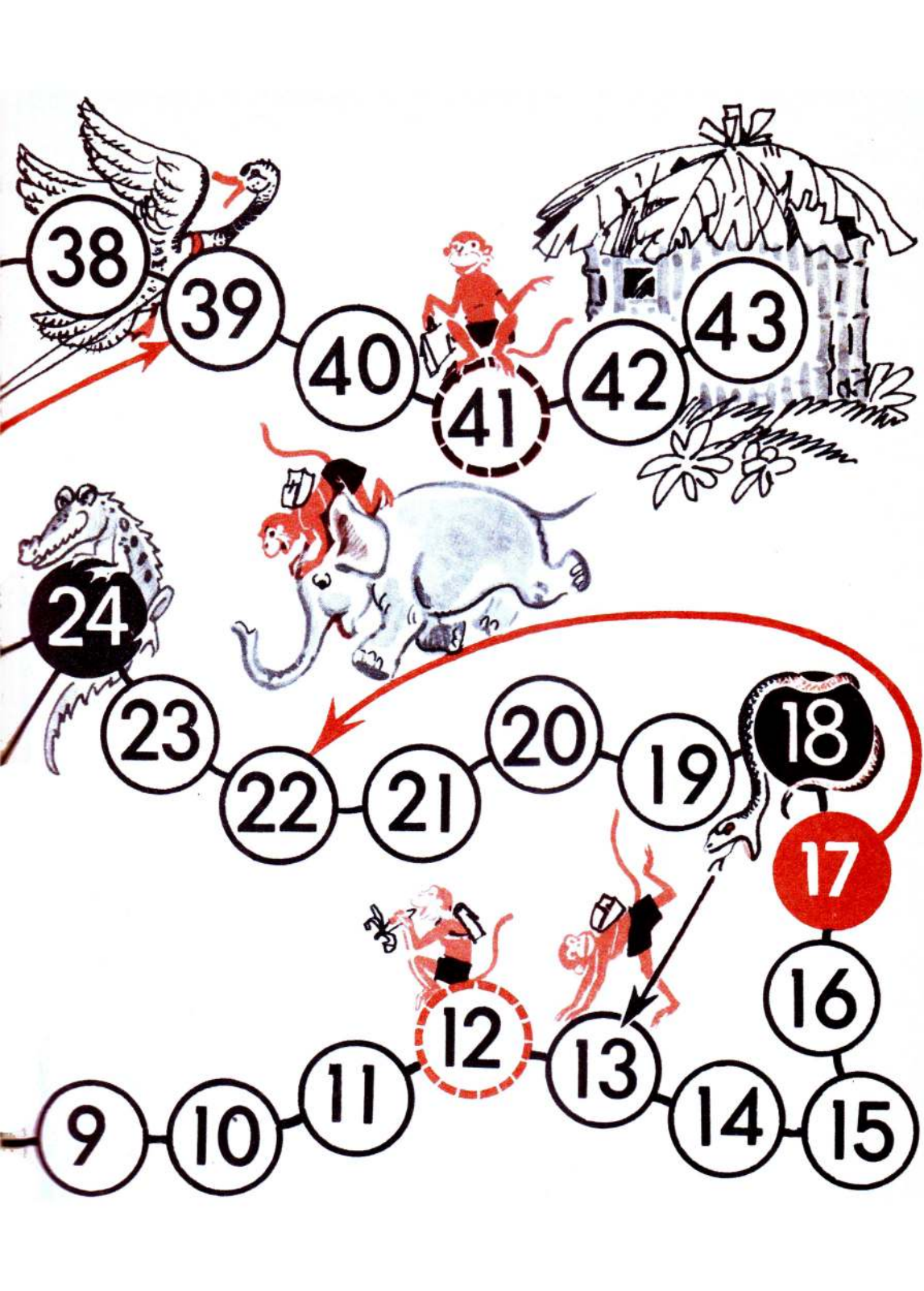
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II. COUNTING FOR FUN

This game should be played in pairs, and a referee appointed to see that it is played correctly.

Tables 1-a and 1-b have figures from 1 to 30. Tables 2-a and 2-b have figures from 1 to 42. Each set of tables contains the same figures but they are arranged differently.

One player takes Table 1-a and the other takes Table 1-b. Then at a word from the referee each player begins to name all the figures in his table one after another in the right order (beginning with 1). The first player to finish the table is the winner.

Then Table 2 is used.

25	16	21	3	6	8
23	12	4	15	7	17
28	19	30	29	20	18
27	14	10	24	1	22
9	11	5	2	26	13

Table 1a

17	8	24	6	29	18
23	5	13	19	3	27
20	7	4	21	16	11
25	15	1	10	14	22
9	2	26	12	28	30

Table 1b

40	7	12	31	29	3
38	26	5	17	30	18
22	37	8	15	24	11
2	13	27	35	25	42
33	23	16	6	14	32
41	9	28	10	36	1
4	19	34	21	39	20

Table 2a

5	27	32	12	26	1
41	9	20	28	10	36
11	25	16	13	37	3
24	15	6	17	30	23
38	22	2	8	7	40
4	19	35	29	34	21
33	14	18	39	42	31

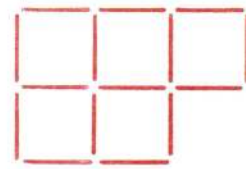
Table 2b

III. GAMES WITH SMALL STICKS

For these games you need 30 small sticks of the same length. Several persons can play. The winner is the first to complete the task or to find more than one way of completing it (where possible).

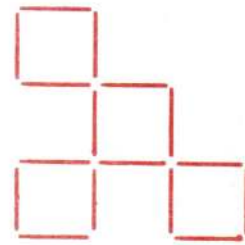
After the game the players will find the answers on pages 43-44 and check themselves.

1) Arrange the sticks as in this figure:



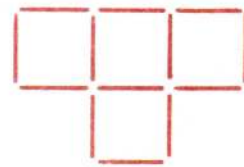
Now take two sticks away so that four squares of the same size remain. Do it in different ways.

2) Arrange the sticks as in this figure:



Now change the position of two sticks so that five squares of the same size appear. Do it in different ways.

3) Arrange the sticks as in this figure:



Now take one stick away so that three squares of the same size remain.

4) Arrange the sticks as in this figure:

Now change the position of two sticks so that two triangles appear instead of three.

IV. MAGIC SQUARES

A magic square is a square in which the sum of the numbers in each line, in each row and diagonally from one corner to another is the same.

For instance:

2	9	4
7	5	3
6	1	8

Add the numbers in each line of this square, and you will find that the sum is 15 in each case.

Five squares with two variants each are given for the game, which is for two players. Each player chooses a square, say 1-A or 1-B, and fills in the missing numbers.

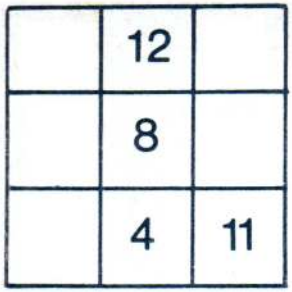
The winner is the first to complete his square.

5		
	6	
9		

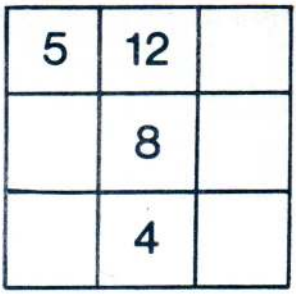
Square 1-A
(sum,18)

		3
	6	
		7

Square 1-B
(sum, 18)

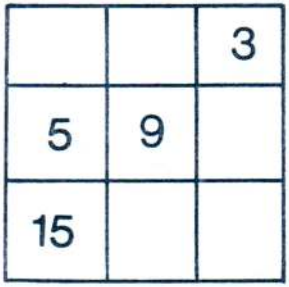


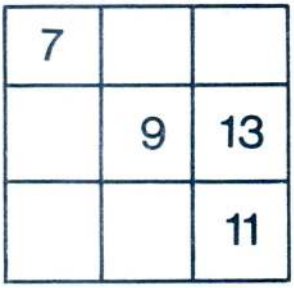
Square 2-A



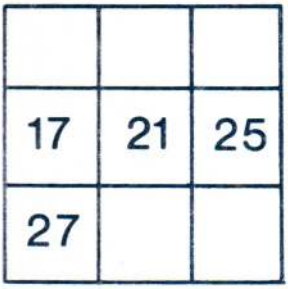
Square 2-B

Square 3-A

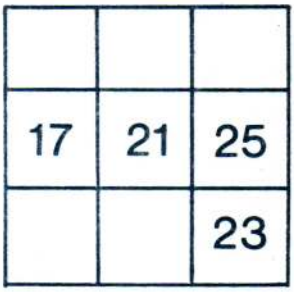




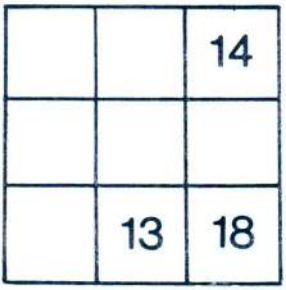
Square 3-B



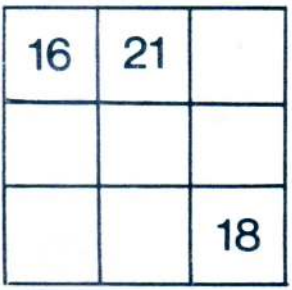
Square 4-A



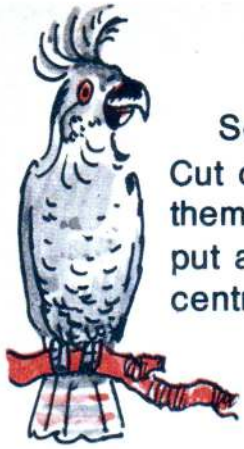
Square 4-B



Square 5-A
(sum, 51)



Square 5-B
(sum, 51)



V. GAMES WITH A TOP

Several players can take part in these games. Cut out the tops from the Appendix (p. 47) and glue them on cardboard or strong paper. To rotate a top, put a thin stick with a sharpened point through its centre.

1) Add a number

Top No 1 is used in this game.

The players decide beforehand on the number they wish to add (say 7). Then the leader spins the top. When it stops, the top falls on one of its sides. The leader picks it up and shows (or names) the number marked on that side. Then the number agreed upon (say 7) is added to the number shown (or named). Each player writes down his result. Then the top is spun again, and the procedure is repeated.

At the end of the game all the results are checked. The player whose calculations are all correct is the winner.

NOTE. The sum of the number agreed upon and any number on the top must not be greater than 100.

2) Subtract a number

Top No 2 is used in this game.

This game is played in the same way as the first one. The only difference is that the number agreed upon is subtracted from the numbers on the top.

NOTE. The number agreed upon must not be greater than any number on the top.

3) A top and a dice

Top No 1 or top No 2 and a dice with dots on it (p. 45) are used in this game.

One player spins the top, and another throws the dice. The top and the dice each show a number. First, these numbers are added together. Then the lesser number is subtracted from the greater one. The player who gives the correct answer first scores one point.

4) Add up to 100

Top No 3 is used in this game.

Each player spins the top in turn and writes down the number which shows on the side of the top. After each turn he adds his new number to his previous total.

The winner is the first to reach 100.

5) Two tops

Top No 3 and top No 4 are used in this game.

The players choose beforehand any two-figure number (say 25). Top No 4 (with + and − signs) is spun, and then top No 3 with numbers.

If top No 4 shows a + sign, the number shown by top No 3 is added to the number agreed upon. If it shows a − sign, the number shown by top No 3 is subtracted from the number agreed upon.

The winner is the player whose answers are all correct.

ANSWERS TO THE PROBLEMS

39 A kilogramme of cotton wool and a kilogramme of iron weigh exactly the same.

42 There are 6 children in the family.

45 All 7 candles remain on the table.

48 3 minutes.

51 None. All the other sparrows flew away – they were frightened by the cat.

53

57 Pour 2 litres of water into the 5-litre can twice, then pour 2 litres of water into the 2-litre can and you will have 6 litres altogether.

60 The triangle, because the other figures each have 4 angles.

63 The boy has to go up 40 steps (20 steps from the ground floor to the first floor and 20 steps from the first floor to the second).

66 The boy made 6 cuts.

69

72 6 children.

75 3 elephants were walking in a line one after another.

78

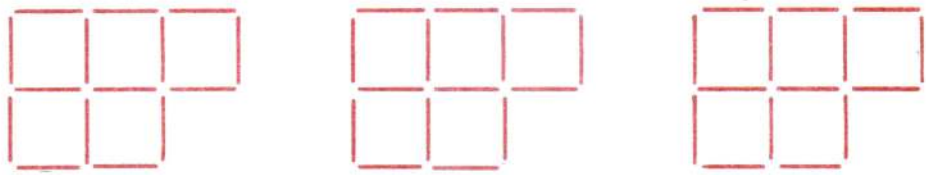
81 The brother will always be 3 years older than his sister.

84 The girl must pour 3 litres of water into the bucket four times and then pour 5 litres out.

ANSWERS TO THE GAMES WITH STICKS

In the answers to tasks 1 - 4 those sticks which are to be taken away are crossed out. Dotted lines show the required new positions of certain sticks.

1



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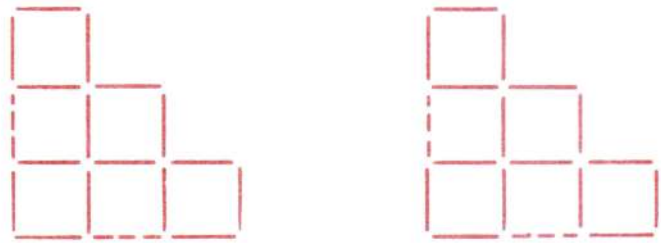

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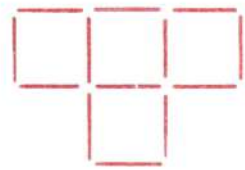

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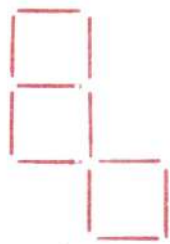

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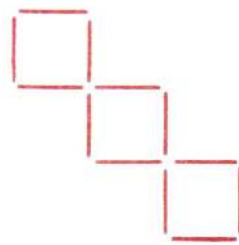

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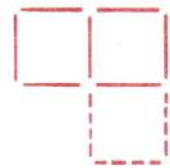

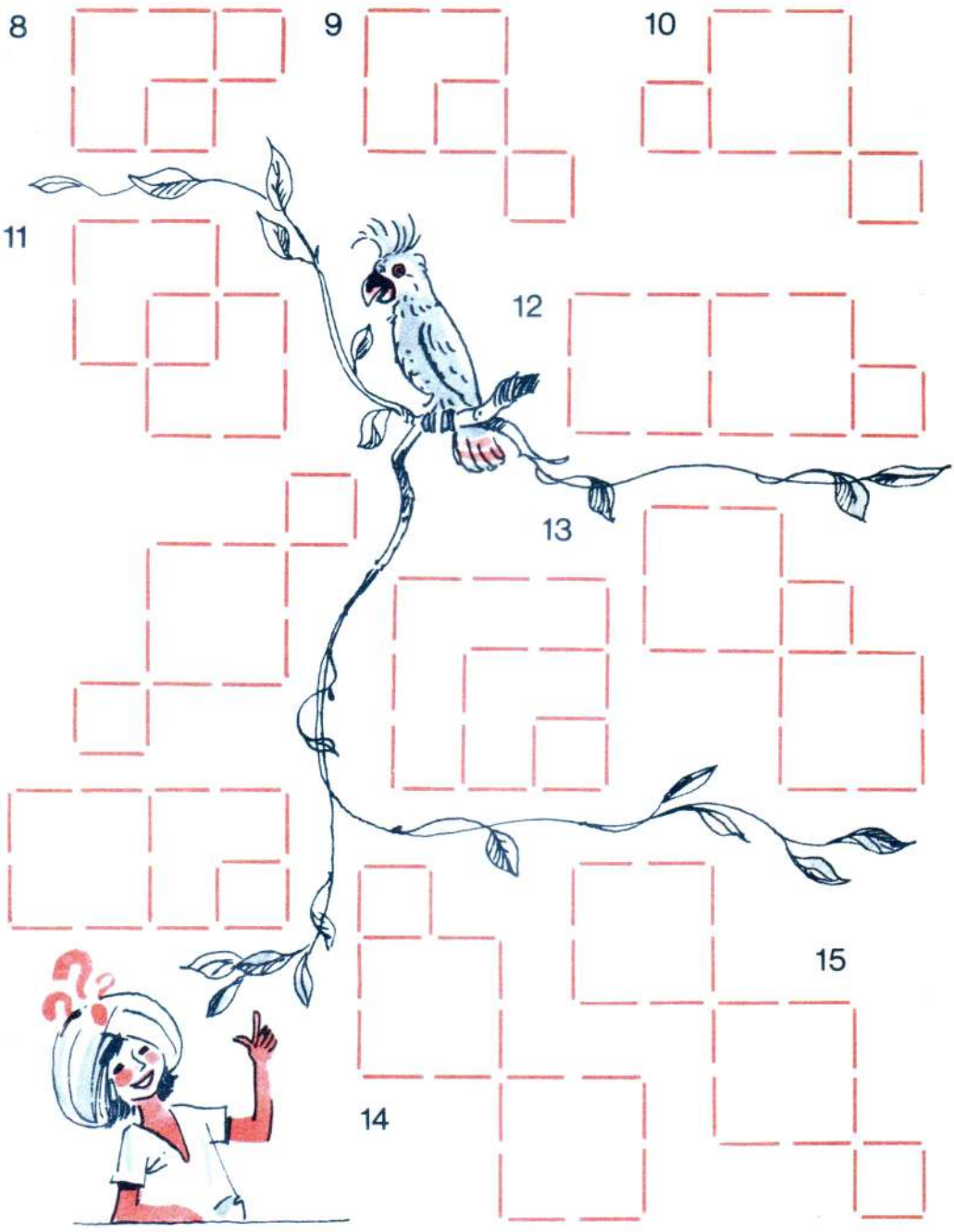
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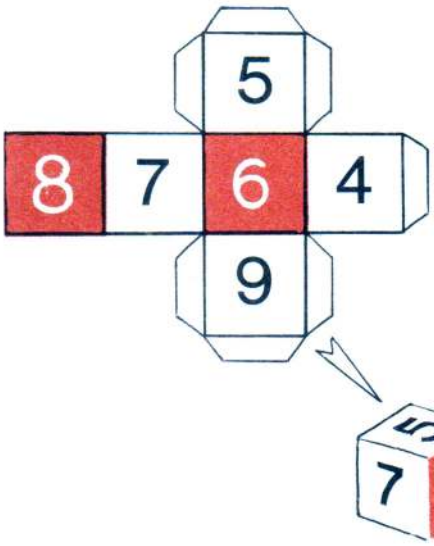
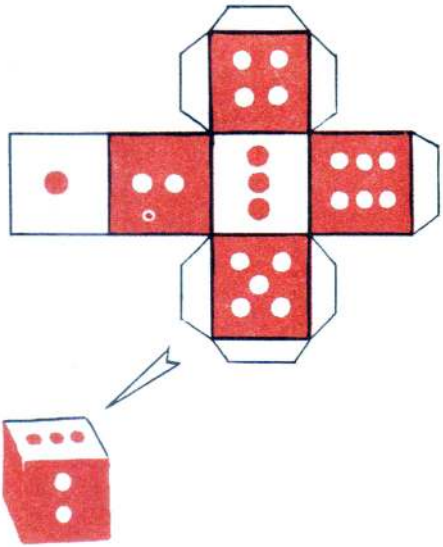
APPENDIX

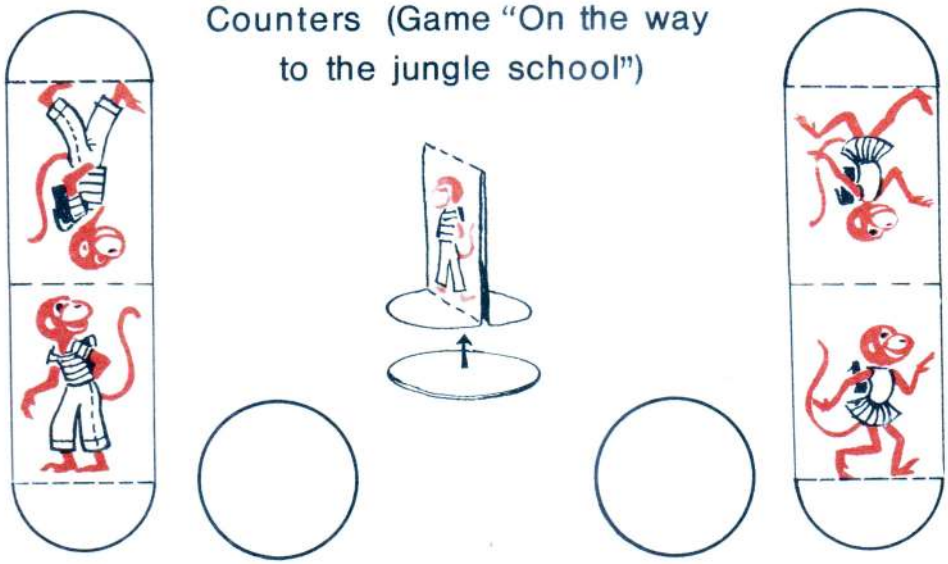
A dice (Game "On the way to the jungle school")



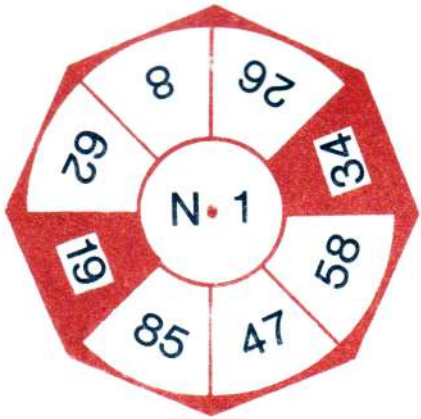
A dice
(Game 3 "A top and a dice")



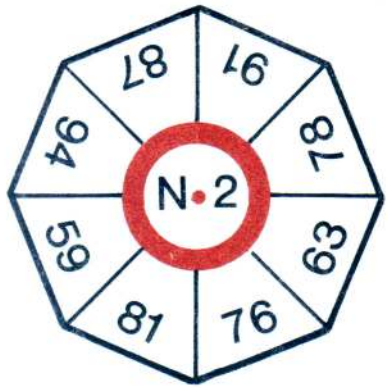
Counters (Game "On the way to the jungle school")



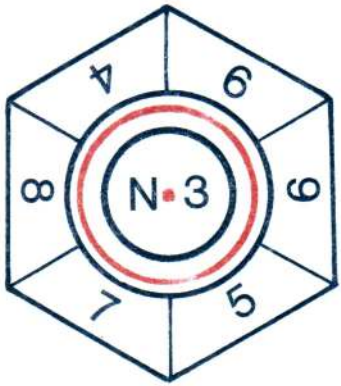
Top No 1 (Games 1 and 3)



Top No 2 (Games 2 and 3)



Top No 3 (Games 4 and 5)



Top No 4 (Game 5)

Н. Ф. Вацнар

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